

Application No. 09/724,336
Amendment dated September 21, 2006
Response to Office Action of June 21, 2006

Atty. Docket No. 042390.P9919
Examiner Reilly, Sean M
TC/A.U. 2153

Amendments to the Claims

Please amend claims 1, 2, 12, 22 and 27 as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

1 1. **(Currently Amended)** A method for locating an efficient server among
2 servers mirroring a network site, comprising:
3 receiving ~~by a first server~~ a request for a resource ~~an incoming connection from a~~
4 client in communication with said servers over a network, the resource including links to
5 a first resource of a first type and a second resource of a second type;
6 determining for a first server an efficiency rating indicating the first server is
7 efficient at providing resources of at least the first type to the client ~~providing a first~~
8 ~~efficiency rating for communication between the first server and the client, wherein the~~
9 ~~first efficiency rating has an associated first predicted reliability rating associated with~~
10 ~~the first server;~~
11 determining for a second server an efficiency rating indicating the second server
12 is efficient at providing resources of at least the second type to the client ~~determining a~~
13 ~~second efficiency rating for communication between a second server and the client,~~
14 ~~wherein said determining the second efficiency rating has an associated second is~~
15 ~~based in part on a predicted reliability rating for associated with the second server; and~~
16 directing the client to subsequently communicate with the first server for
17 accessing the first resource and the second server for accessing the second resource
18 ~~when the second efficiency rating is worse better than the first efficiency rating but the~~
19 ~~second predicted reliability is better than the first predicted reliability.~~

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1 2. **(Currently Amended)** The method of claim 1, wherein said
2 determining ~~providing~~ the first efficiency rating comprises a selected one of:
3 measuring communication efficiency between the first server and the client, and
4 looking-up a previously measured communication efficiency between the first
5 server and the client.

6 3. **(Currently Amended)** The method of claim 1, further comprising:
7 wherein said directing comprises returning a network resource to the client
8 containing a first link to the first resource at the first server and a second link to the
9 second resource ~~at least one reference therein to the second server.~~

10 4. **(Currently Amended)** The method of claim 3, wherein the network
11 resource ~~at least one reference~~ comprises a web page element containing at least the
12 first and second links respectively linking to the first and second servers ~~such that~~
13 ~~activation thereof by the client causes the client to contact the second server.~~

14 5. **(Currently Amended)** The method of claim 3, wherein the network
15 resource ~~received from the first server~~ comprises a tag based data structure having
16 embedded identifiers specifying resources located on the network, ~~and wherein the~~
17 embedded identifiers including said first link and second link ~~at least one reference is an~~
18 ~~embedded identifier specifying a network resource of the second server.~~

19 6. **(Currently Amended)** The method of claim 1, further comprising:
20 returning a network resource to the client;

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1 configuring the network resource so as to cause the client to contact at least the
2 first and second server to measure ~~so that the first and second server can measure~~
3 efficiency for providing resources of at least the first and second types to a second
4 efficiency rating for communication with the client; and
5 retrieving the second efficiency rating.

6 7. (Original) The method of claim 1, wherein each of said servers store
7 efficiency ratings on a commonly accessible storage device.

8 8. (Previously Presented) The method of claim 1, further comprising:
9 storing efficiency ratings for communication with the client on a storage device;
10 and
11 retrieving at least one of said stored efficiency ratings from said second server
12 over a communication channel different from the network.

13 9. (Currently Amended) The method of claim 1, wherein said
14 determining providing the efficiency ratings comprises determining an end-user delay
15 between the client requesting a first network resource from at least one of said servers,
16 and the client's receiving said requested first network resource therefrom.

17 10. (Currently Amended) The method of claim 1, wherein the request
18 ~~incoming connection~~ from the client is generated by a browser, and wherein the
19 efficiency ratings measure[s] at least efficiency of delivering web page resources to the
20 client.

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1 11. **(Currently Amended)** The method of claim 1, further comprising:
2 ~~contacting~~ determining by a geographic resolution service ~~so as to determine~~ the
3 first server has a closest geographical proximity to the client than the second server;
4 wherein the client is configured to initially contacting the first server for the
5 resource in accordance with its being geographically closest to the client; ~~and~~
6 ~~contacting the second server in accordance with the second server having the~~
7 ~~higher efficiency rating notwithstanding the first server being geographically closest to~~
8 ~~the client.~~

9 12. **(Currently Amended)** An article, comprising a storage medium having
10 instructions for locating an efficient server among servers mirroring a network site
11 encoded thereon for execution by a processor, said instructions capable of directing the
12 processor to perform:
13 ~~receiving by a first server an incoming connection~~ a request for a resource from a
14 client in communication with said servers over a network, the resource including links to
15 a first resource of a first type and a second resource of a second type;
16 determining for a first server an efficiency rating indicating the first server is
17 efficient at providing resources of at least the first type to the client ~~providing a first~~
18 ~~efficiency rating for communication between a first server and the client, wherein the~~
19 ~~first efficiency rating has an associated first predicted reliability rating associated with~~
20 ~~the first server wherein said providing comprises a selected one of: measuring~~
21 ~~communication efficiency between the first server and the client, and looking up a~~
22 ~~previously measured communication efficiency between the first server and the client;~~

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1 determining for a second server an efficiency rating indicating the second server
2 is efficient at providing resources of at least the second type to the client a second
3 efficiency rating for communication between a second server and the client, wherein
4 said determining the second efficiency rating is based in part on a second predicted
5 reliability rating associated with the second server; and
6 directing the client to subsequently communicate with first server for accessing
7 the first resource and the second server for accessing the second resource when the
8 second efficiency rating is worse better than the first efficiency rating but the second
9 predicted reliability is better than the first predicted reliability.

10 13. **(Currently Amended)** The article of claim 12, wherein said instructions for
11 directing the client to ~~subsequently communicate with the second server~~ comprise
12 instructions to direct the processor to perform:
13 returning a network resource to the client containing a first link to the first
14 resource at the first server and a second link to the second resource at least one
15 reference therein to the second server.

16 14. **(Currently Amended)** The article of claim 13, wherein the network
17 resource at least one reference comprises a web page element containing at least the
18 first and second links respectively linking to the first and second servers such that
19 activation thereof by the client causes the client to contact the second server.

20 15. **(Currently Amended)** The article of claim 13,

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1 wherein the network resource ~~received from the first server~~ comprises a tag
2 based data structure comprising embedded identifiers specifying resources located on
3 the network, and

4 wherein the embedded identifiers including said first and second link at least one
5 ~~reference is an embedded identifier specifying a network resource of the second server.~~

6 16. (Currently Amended) The article of claim 12, said instructions including
7 further instructions for:

8 returning a network resource to the client;
9 configuring the network resource so as to cause the client to contact at least the
10 first and second server to measure so that the first and second server can measure
11 efficiency for providing resources of at least the first and second types to a second
12 ~~efficiency rating for communication with the client; and~~
13 ~~retrieving the second efficiency rating.~~

14 17. (Previously Presented) The article of claim 12, wherein each of said
15 servers stores measured communication efficiency ratings on a commonly accessible
16 networked storage device.

17 18. (Previously Presented) The article of claim 12, said instructions including
18 further instructions for:

19 storing by the first server and the second server of efficiency ratings for
20 communication with the client on a storage device associated thereto;

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1 wherein the first server retrieves stored efficiency ratings from said second over a
2 communication channel different from the network.

3 19. (Previously Presented) The article of claim 12, wherein said instructions
4 for measuring efficiency ratings include further instructions for:

5 determining an end-user delay between requesting a first network resource from
6 said servers, and the client's receiving said requested first network resource in
7 response thereto.

8 20. (Currently Amended) The article of claim 12, wherein the request
9 ~~incoming connection~~ from the client is generated by a browser, and wherein the
10 efficiency ratings measure[s] efficiency of delivering web page resources to the client.

11 21. (Currently Amended) The article of claim 12, said instructions including
12 further instructions for:

13 providing a network site identifier to a resolution service for determining a
14 geographically closest server of said servers mirroring the network site;

15 contacting said geographically closest server in accordance with its being
16 geographically closest to the client for the resource; and

17 ~~contacting the second server in accordance with the second server having the~~
18 ~~higher efficiency rating notwithstanding the first server being geographically closest to~~
19 ~~the client.~~

20 22. (Currently Amended) A method, comprising:

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1 determining a first server is being geographically closer to a client than a second
2 server;

3 determine a first and a second efficiency rating of communication respectively
4 between the client and the first and the second server, said ratings including efficiency
5 for accessing a resource type of the servers;

6 determining a first and a second predicted reliability rating respectively for the
7 first and second servers;

8 ~~determining a first efficiency rating of communication between the client and the~~
9 ~~first server, wherein the first efficiency rating has an associated first predicted reliability~~
10 ~~rating associated with of the first and second server;~~

11 ~~determining a second efficiency rating of communication between the client and~~
12 ~~the second server, wherein the second efficiency rating has an associated second is~~
13 ~~based in part on a predicted reliability rating associated with the second server; and~~

14 evaluating whether the first efficiency rating exceeds the second first efficiency
15 rating but the first predicted reliability is substantially less than the second predicted
16 reliability, and if so, providing a web page of the first server linking to ~~which contains~~
17 content ~~linking to~~ of the second server.

18 23. (Previously Presented) The method of claim 22, further comprising:

19 determining said first efficiency rating based in part on first contacting by the
20 client of the first server; and

21 determining said second efficiency rating based at least in part on second
22 contacting by the first server of the second server.

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1 24. (Previously Presented) The method of claim 23, further comprising:
2 maintaining by the second server a rating table indexed according to client
3 network addresses;
4 storing in said table an entry for each site hosting a copy of the web site, each
5 entry indicating a measured communication efficiency between the client and each
6 corresponding hosting site; and
7 sending to the first server said measured communication efficiency between the
8 second server and the client.

9 25. (Original) The method of claim 24, wherein measuring communication
10 efficiency between the client and the first and second servers comprises:
11 first requesting first network resources from the first server, and determining a
12 first end-user delay for the client in receiving said first network resources; and
13 configuring said first network resources to include web page data to cause the
14 client to perform a second requesting of second network resources from the second
15 server; and
16 determining a second end-user delay for the client in receiving said second
17 network resources.

18 26. (Original) The method of claim 22, further comprising:
19 if the second efficiency rating exceeds the first efficiency rating, then receiving a
20 web page from the first server with all web links directed towards the second server;
21 and

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1 if the first efficiency rating exceeds the second efficiency rating, then receiving
2 the web page from the first server with all web links directed towards the first server.

3 27. (Currently Amended) An article comprising a storage medium having
4 instruction encoded thereon, said instructions, which when executed by a processor,
5 are capable of directing the processor to:

6 determine a first server is being geographically closer to a client than a second
7 server, ~~wherein the first efficiency rating has an associated first predicted reliability~~
8 ~~rating associated with the first server;~~

9 determine a first and a second efficiency rating of communication respectively
10 between the client and the first and the second server, said ratings including efficiency
11 for accessing a resource type of the servers;

12 determine a first and a second predicted reliability rating respectively for the first
13 and second servers;

14 ~~determine a first efficiency rating of communication between the client and the~~
15 ~~first server;~~

16 ~~determine a second efficiency rating of communication between the client and~~
17 ~~the second server, wherein said determining the second efficiency rating has an~~
18 ~~associated second is based in part on a predicted reliability rating associated with the~~
19 ~~second server; and~~

20 evaluate whether the first ~~second~~ efficiency rating exceeds the second first
21 efficiency rating but the first predicted reliability is substantially less than the second

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1 predicted reliability, and if so, providing a web page of the first server linking to which
2 ~~contains content linking to~~ of the second server.

3 28. (Previously Presented) The article of claim 27, said instructions including
4 further instructions to:

5 determine said first efficiency rating based in part on first contacting by the client
6 of the first server; and

7 determine said second efficiency rating based at least in ~~on~~ part on second
8 contacting by the first server of the second server.

9 29. (Previously Presented) The article of claim 28 said instructions including
10 further instructions to:

11 maintain by the second server a rating table indexed according to client network
12 addresses;

13 store in said table an entry for each site hosting a copy of the web site, each
14 entry indicating a predicted communication efficiency between the client and each
15 corresponding hosting site; and

16 send to the first server, responsive to said contacting by the first server, said
17 predicted communication efficiency for the second server and the client.

18 30. (Original) The article of claim 29, wherein predicting communication
19 efficiency between the client and the first and second servers comprises:

20 first request first network resources from the first server, and determine a first
21 end-user delay for the client in receiving said first network resources;

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1 configure said first network resources to include web page data to cause the
2 client to perform a second request of second network resources from the second server;
3 and
4 determine a second end-user delay for the client in receiving said second
5 network resources.

6 31. (Original) The article of claim 27, said instructions including further
7 instructions to:

8 determine if the second efficiency rating exceeds the first efficiency rating, and if
9 so, then receive a web page from the first server with all web links directed towards the
10 second server; and

11 determine if the first efficiency rating exceeds the second efficiency rating, and if
12 so, then receive the web page from the first server with all web links directed towards
13 the first server.